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EXAMINER

ODLAND, DAVID E

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 09/02/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

12/1

Office Action Summary

Application No.

09/515,766

Applicant(s)

HAMELEERS ET AL.

Examiner

David Odland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/1/00 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: the claim recites, "...signalling]..." in line 2. It appears as though the '[' symbol is a typographical error and will be disregarded by the Examiner for claim interpretation purposes.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 14 recite, "...the first and the second layer of the cellular telephone network..." in lines 8 and 9. This limitation is confusing because the claim earlier recites that the communications network (as a whole) comprises the first and second layer and so these layers are not specific to the cellular telephone network (see the preamble of the claim).

Claims 5 and 9 recite, "...the cellular telephone network part..." in lines 2 and 3. There is a lack of antecedent basis for this limitation in the claim.

Claims 2-13 are also rejected because they depend on claim 1.

Claim 14 recites, "...and comprised by the second layer," in line 12. It is unclear what is being 'comprised by the second layer' (i.e. what is being comprised by the second layer).

Claims 14 and 15 recite "...via a direct route or through-connection assigned to the telephone..." in line 11. It is unclear what is meant by 'through-connection'.

Claim 27 recites, "...after receiving the base transceiver station (BTS) address information from the base transceiver station..." in lines 1 and 2. It is unclear why the BTS is transmitting its address to itself.

Claim 30 recites, "...wherein media gateway address information...identifies...the call in the media gateway..." in lines 1-3. It is unclear how the media gateway address is used to identify a call in the media gateway. It is also unclear what is meant by a call being '*in* the media gateway'.

Claims 13-31 are rejected because they depend on claim 14.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-21, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Barany et al. (USPN 6,434,140), hereafter referred to as Barany.

Referring to claims 1 and 14, Barany discloses a communication network having a packet switched protocol based cellular telephone network (a communications system comprising radio packet communications (see figure 4)) comprising a first layer for transferring signalling

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information assigned to a telephone call being processed by the communication network (communications system comprises elements that handle signaling information (see items 403,412 and 406 of figure 4)), a second layer for transferring payload information assigned to the telephone call (the communications system comprises elements that handle payload data (see items 402,408,403,412 and 406 of figure 4)) and interface means for coupling the cellular telephone network to a further network (the GPRS network (item 406) and the PSTN gateway (item 412), provide an interface between the cellular network to other further networks such as the Internet and PSTN (see figure 4)) the interface means comprising signalling information exchange function between the cellular telephone network and the further network (the interface provides signaling exchange between a mobile network and the other networks (see figure 4)) and payload information exchange function between the cellular telephone network and the further network (the interface also provides payload exchange between the cellular network and the other networks (see figure 4)), the first layer and the second layer of the cellular telephone network being coupled to the interface means (the first and second layer elements are coupled to the interface (see figure 4)) , wherein the second layer of the cellular telephone network transfers the payload information of the telephone call to and from the interface means on a direct route assigned to the telephone call within the second layer (the BSSy directly transfers payload information to the GPRS network (see figure 4));

Referring to claims 2 and 16, Barany discloses the system discussed above. Furthermore, Barany discloses that the second layer of the cellular telephone network comprises a number of base transceiver stations (the second layer comprises base stations (see BSSx and BSSy of figure 4)) each base transceiver station handling the radio link protocol functions to mobile stations

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within a cell area assigned to the respective base transceiver station (the base stations handle protocols for communicating between themselves and the mobile stations (see figure 4)) and wherein the base transceiver station being directly connected to the interface means for payload information exchange within the second layer (the base station is directly coupled to the interface for payload exchange (see figure 4)).

Referring to claim 3, Barany discloses the system discussed above. Furthermore, Barany discloses that the interface means comprises media gateway means for payload information exchange between the cellular telephone network and the further network (the interface comprises a gateway for payload information transferred between the mobile stations and the other networks (see figure 4)) and to be coupled directly to the base transceiver stations (the base stations are connected to the interface (see figure 4)).

Referring to claim 4, Barany discloses the system discussed above. Furthermore, Barany discloses that the first layer of the cellular telephone network comprises at least one mobile services switching center being coupled to the interface means (an MSC is coupled to the interface (see item 403 of figure 4)).

Referring to claim 5, Barany discloses the system discussed above. Furthermore, Barany discloses that the interface means comprises media gateway means for payload information exchange between the cellular telephone network part and the further network (the interface comprises a gateway for payload information transferred between the mobile stations and the other networks (see figure 4)) and wherein the mobile services switching center is connected to a media gateway of the interface means to control the media gateway (the MSC is connected to the Media gateways (see figure 4)).

Referring to claims 6, 17 and 19, Barany discloses the system discussed above.

Furthermore, Barany discloses that the first layer comprises at least one mobile services switching center being coupled to the interface means for signalling information exchange (the MSC is coupled to the interface for signaling exchange (see figure 4)).

Referring to claims 7, 18 and 20, Barany discloses the system discussed above, Furthermore, Barany discloses a signalling gateway for signalling information exchange between the cellular telephone network and the further network and wherein the mobile services switching center is connected to the signalling gateway to exchange signalling information between the signalling gateway and the mobile services switching center.

Referring to claim 8, Barany discloses the system discussed above. Furthermore, Barany discloses that the first layer of the cellular telephone network comprises at least one mobile services switching' center and at least one base station controller being coupled to a number of base transceiver stations of the second layer (the MSC is coupled and being connected to at least one mobile services switching center wherein the base station controller controls each of the base transceiver stations by means of a device control protocol function and communicates to the mobile services switching center by means of an application signalling protocol function.

Referring to claim 9, Barany discloses the system discussed above. Furthermore, Barany discloses that the cellular telephone network part is a GSM network (the mobile network (GPRS-136) is part of the GSM network (see figure 4 and column 2 lines 9-17)).

Referring to claim 10, Barany discloses the system discussed above. Furthermore, Barany discloses that the further network is a packet switched network (the further network is the Internet, which is packet switched (see figure 4)).

Referring to claim 11, Barany discloses the system discussed above. Furthermore, Barany discloses that the packet switched network is the Internet, a VoIP network, an Internet Protocol network, a GPRS network or a UMTS network (the packet switched network is the Internet (see figure 4)).

Referring to claim 12, Barany discloses the system discussed above. Furthermore, Barany discloses that the further network is a circuit switched network (the further network is the PSYN, which is circuit-switched (see figure 4)).

Referring to claim 13, Barany discloses the system discussed above. Furthermore, Barany discloses that the circuit switched network is an ISDN, PLNM or PSTN network (the circuit-switched network is the PSTN (see figure 4)).

Referring to claim 15, Barany discloses the system discussed above. Furthermore, Barany discloses that after initializing the telephone call, in a base transceiver station of the second layer which is assigned to said call, a base transceiver station (BTS) address is generated and forwarded via the first layer of the cellular telephone network to the interface means (the BSSx transfers signaling information (that inherently includes its address since communications between them must take place) to the MSC over link A, which transfers the address to the media gateway for processing the call of mobile stations MSx and MSy (see figure 4)) and interface address information or media gateway address information is generated in the interface means (the interface generates addresses in order for the calls of MSx and MSy to take place to and from the other networks (see figure 4)) and forwarded via the first layer of the cellular telephone network to the base transceiver station for establishing a direct through-connection within the second layer between the base transceiver station (the interface transfers signalling information,

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which comprises address information, to the mobile stations through layer 1 elements such as link A and link ISUP and transfers payload information to the mobile stations through layer 2 elements such as link IMT and link T1 (see figure 4)) and the interface means to allow direct data, payload and call information exchange between the interface means and the base transceiver station and vice versa (payload and signaling are transferred through the interface to the base stations (see figure 4)).

Referring to claim 21, Barany discloses the system discussed above. Furthermore, Barany discloses that the first layer of the cellular telephone network comprises at least one mobile services switching center and a least one base station controller coupled to a number of base transceiver stations of the second layer and being connected to the mobile services switching center, the method providing a device control protocol function to be established between the base station controller and each of the base transceivers for controlling of the base transceiver stations and the information exchange between the base station controller and the base transceiver stations, and the method providing an application signalling protocol function to be established between the base station controller and the mobile services switching center (the Barany reference utilizes the GSM standard and since all of the limitations of claim 21 describe the basic GSM network set-up according to the standard, Barany anticipates claim 21 (see column 2 lines 5-17)).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 22-31, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Barany in view of Alperovich et al. (USPN 5,940,763), hereafter referred to as Alperovich.

Referring to claims 22 and 23, Barany discloses the system discussed above. Barany does not disclose that after a new call is initiated call identification information is generated and stored in the MSC and sent to the base station controller and forwarded on to the base station. However, Alperovich discloses that after initiating a new call by a mobile station, a call identification information being assigned to the new call is generated and stored within the mobile services switching center (the mobile station originates a call wherein TCH channel information is determined by the MSC (see figure 4 and column 6 line 33 through column 7 line 16)), then the call identification information is sent by the application signalling protocol function from the mobile services switching center to the base station controller (the MSC responds with an assignment request signal that is sent to the BSC (see column 6 line 33 through column 7 line 16 and figure 4)) and the call identification information from the mobile services switching center is stored within the base station controller and a corresponding request is forwarded to a base transceiver station by means of the device control protocol function being established between the base station controller and the base transceiver station (the BSC notes the TCH channel described in the assignment request signal and forwards an assignment command signal to the base station, letting the base station know what the assigned TCH channel is (see column 6 line 33 through column 7 line 16 and figure 4)). It would have been obvious to

one skilled in the art at the time of the invention to communicate perform such operations, as disclosed in Alperovich, in the system of Barany because doing so would provide the mobile unit with a signaling channel which can be used for proper communication with the rest of the network.

Referring to claim 24, Barany discloses the system discussed above. Furthermore, Barany discloses that the base station exchanges payload information between itself and the media gateway (the base stations communicate payload information to the interface with comprises media gateways and is considered second layer because it communicates payload information (see figure 4)). Barany does not disclose that after receiving the call identification information from the base station controller, base transceiver station (BTS) address information is generated in the base transceiver station, the base transceiver station (BTS) address information identifies the base transceiver station being assigned to the call and the call within the base transceiver station. However, it would have been obvious to one skilled in the art at the time of the invention to generate and forward the media gateway address back to the mobile station because doing so will allow the mobile station to properly and quickly address the data it needs to send to the gateway.

Referring to claim 25, Barany discloses the system discussed above. Barany does not disclose that the generated base transceiver station (BTS) address information is forwarded to the base station controller. However, the Barany system uses the GSM standard for communication and the standard dictates that the BSC needs to know the address of the base station since it controls the base station and therefore the Barany reference anticipates this limitation of the claim.

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Referring to claim 26 and 27, Barany discloses the system discussed above. Barany does not disclose that the call identification information from the base station controller is stored in the base transceiver station, the base transceiver station address information is sent to the MSC from the BSC, or the call identification and base transceiver address information is stored in the MSC. However, Alperovich discloses that the call identification information from the base station controller is stored in the base transceiver station (the assignment command signal from the BSC tells the base station what the TCH channel so the base station uses this to set up the call and thus must store this information for the call to take place (see figure 4 and column 6 line 33 through column 7 line 16)) and after receiving the base transceiver station (BTS) address information from the base transceiver station the base transceiver station (BTS) address information is forwarded to the mobile services switching center from the base station controller (the base station identity code is forwarded to the MSC (see column 7 line 4)). It would have been obvious to one skilled in the art at the time of the invention to communicate perform such operations, as disclosed in Alperovich, in the system of Barany because doing so would provide the mobile unit with a signaling channel which can be used for proper communication with the rest of the network.

Referring to claim 28, Barany discloses the system discussed above. Barany does not specifically disclose that after requesting a connection from the media gateway the call identification and the base transceiver station (BTS) address information are sent to the media gateway utilizing the mobile services switching center (MSC) device control protocol function. However, it would have been obvious to one skilled in the art at the time of the invention to send

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such information to the gateway in the system of Barany because doing so will allow the gateway to properly and quickly address the data it needs to send to the mobile station.

Referring to claim 29, Barany discloses the system discussed above. Furthermore, Barany discloses that a request for through-connection is sent from the mobile services switching center to the media gateway by means of the mobile services switching center (MSC) device control protocol function (inherently, a request is sent to the gateway in order to set-up the connection with the mobile station and this is done using a protocol (see figure 4)).

Referring to claim 30, Barany discloses the system discussed above. Furthermore, Barany discloses that the media gateway address information is generated in the media gateway, which identifies the media gateway and the call in the media gateway (the gateways can identify themselves and calls they receive (see figure 4)) and then forwarded back to the mobile services switching center by means of the mobile services switching center (MSC) device control protocol (the MSC knows where the gateways are since it communicates with the gateways (see figure 4)).

Referring to claim 31, Barany discloses the system discussed above. Barany does not disclose that after receiving the media gateway address information from the media gateway the media gateway address information is forwarded from the mobile services switching center via the base station controller to the base transceiver station for establishing a through-connection between the media gateway and the base transceiver station on the basis of the BTS information and the media gateway address information in order to permit direct exchange of information between the media gateway and the base transceiver station and vice versa. However, it would have been obvious to one skilled in the art at the time of the invention to perform such operations

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because doing so would allow the base station of Barany to know the where the gateway is and thus allow it to properly and quickly address the data it needs to send to the gateway.

Conclusion

8. The following prior art, which is made of record and not relied upon, is considered pertinent to applicant's disclosure:

- a. U.S. Patent Number 6434133 to Hamalainen.
- b. U.S. Patent Number 6185288 to Wong.
- c. U.S. Patent Number 5940759 to Lopez-Torres et al.

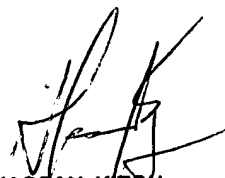
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

August 24, 2003


HASSAN KIZOU
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